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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Washington, DC 20005-3315

EXAMINER

MAKI, STEVEN D.

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

S/A

Office Action Summary

Application No.

10/029,174

Applicant(s)

BOIOCCHI ET AL.

Examiner

Steven D. Maki

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-23 and 25-34 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1733

1) Applicant is advised that should claim 16 be found allowable, claim 34 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Although claims 16 and 34 are worded differently, claims 16 and 34 have the same scope. The description of "rows of central blocks" in claim 16 requires the same number of rows as "at least two rows of central blocks" in claim 34. Furthermore, the description of "the central blocks are separated from each other by transverse grooves having a bottom wall with a shaped profile of variable depth" is merely a broad description of the later described "the bottom wall separating the central blocks of at least one row of said at least two rows of central blocks having an inclined profile decreasing towards one of the circumferential grooves". It fails to require any limitation independent of the later described subject matter.

2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3) **Claims 16-18, 20-21 and 25-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '606 (JP 63-61606) in view of at least one of Japan '106**

(JP 4-143106) and Japan '105 (JP 11-1105), and further in view of either Japan '704 (JP 60-193704) or Croyle et al (US 5529101).

Japan '606 discloses a pneumatic radial tire comprising a tread including a central area (central region) having width TWC and side areas (shoulder regions) each having a width TWS. The central region comprises blocks 40. Each shoulder region comprises blocks 40. The blocks 40 in the shoulder region are joined to each other by joined parts 50. As can be seen from figure 1, the joined parts 50 define a "continuous track" having a continuous lateral wall. During a partial oral translation of Japan '606 by a PTO translator, the following information was obtained: At page 4 upper left, Japan '606 discloses that this center region Tc should be predetermined within 30-50% of tread width. Hence, the central region has a width of 30-50% of the tread width TW. The sum of the shoulder regions therefore is 50-70% of the tread width (overlapping the claimed range of less than or equal to 60% of overall width). Since Japan '606 shows the shoulder regions as having the same width, the width of each shoulder region is 25-35% of tread width (overlapping the claimed range of not less than 20% of overall width). The tire has a size of 225/50R16 (low aspect ratio of 50%) and is therefore a high performance tire as claimed. See tire size at lower left of page 4.

As to claims 16, 25 and 34, it would have been obvious to one of ordinary skill in the art to provide the transverse grooves in the central region of Japan '606's high performance tire such that "the bottom wall separating the central blocks of at least one row of said at least two rows of central blocks has an inclined profile decreasing towards one of the circumferential grooves" in view of (1) Japan '106's teaching to use a curved

Art Unit: 1733

convex bottom for transverse grooves such that the inclined profile decreases from the middle of the transverse groove towards one of the circumferential grooves so as to suppress noise without sacrificing wettability (figure 3b) and/or (2) Japan '105's teaching to use a curved bottom for transverse grooves in a high performance tire (225/50R16) having improved straight running stability such that the inclined profile decreases from one circumferential groove to the other circumferential groove (figure 3). With respect to inclined profile decreasing, claims 16, 25 and 34 fail to require the profile to decrease along the entire length of the transverse groove and thereby fail to require groove bottom different from that suggested by Japan '106. In any event: the claimed groove bottom is considered to clearly read on the groove bottom illustrated by Japan '105 in figure 3.

Furthermore, it would have been obvious to one of ordinary skill in the art to provide the circumferential grooves of Japan '606's pneumatic radial tire such that the outer wall is inclined more than the inner wall in view of (a) Japan '704's suggestion to incline the outer wall of a circumferential groove of a pneumatic radial tire at an angle β greater than the angle α of the inner wall to improve drainage or (b) Croyle et al's suggestion to incline the outer wall of a circumferential groove of a high performance tire more than the inner wall to achieve an increase in lateral stiffness without reducing circumferential groove area.

As to the dependent claims: As to new claims 26-33, the limitations therein would have been obvious in view of the above noted teachings of Japan '106 and/or Japan '105 regarding the shape of groove bottoms. As to two block rows having such

Art Unit: 1733

bottoms, Japan '606's tread has plural block rows in the central region of the tread. The claimed radius of curvature would have been obvious in view of Japan '106 or Japan '105's teaching to only slightly curve the groove bottom. As "cambered", see the groove bottom shape in figure 3b of Japan '106 or figure 3 in Japan '105. As to claims 17 and 18, the claimed angles and claimed radii for the circumferential groove would have been obvious and could have been determined without undue experimentation in view of (a) Japan '704's suggestion to incline one wall at an angle β of 10-30 degrees and to incline the other wall at an angle α of 0-5 degrees such that the resulting *asymmetrical* circumferential groove, which has rounded bottom edges, improves drainage or (b) Croyle et al's suggestion to incline the walls such that an angular variation of 6-20 degrees is defined so that the resulting *asymmetrical* circumferential groove which has round bottom edges, achieves an increase in lateral stiffness without reducing circumferential groove area. As to claim 20, Japan '606 discloses rows of central blocks. As to claim 21, Japan '606 suggests approximately rhomboid shaped blocks.

4) **Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '606 in view of at least one of Japan '106 and Japan '105, and further in view of either Japan '704 or Croyle et al as applied above and further in view of Great Britain '795 (GB 1212795).**

As to claim 19, it would have been obvious to add the claimed sipe(s) to the connected "shoulder blocks" of Japan '606 since Great Britain '795 suggests adding transverse sipes 36 to connected shoulder blocks for enhancing grip of the tire.

Art Unit: 1733

5) Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '606 in view of at least one of Japan '106 and Japan '105, and further in view of either Japan '704 or Croyle et al as applied above and further in view of Japan '314 (JP 11-91314).

As to claim 22, it would have been obvious to provide the central blocks of Japan '606 so that the central blocks are approximately cusp shaped since Japan '314, which like Japan '606 discloses a non-directional tread pattern, suggests using center blocks separated by curved transverse grooves in order to improve drainage.

6) Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '606 in view of at least one of Japan '106 and Japan '105, and further in view of either Japan '704 or Croyle et al as applied above and further in view of Pirelli (Tire Review advertisement) or Kuze et al (US 5016695).

As to claim 23, it would have been obvious to provide the central area of Japan '606's tread with the claimed three block rows and the claimed annular projection (rib) in view of Pirelli's suggestion to use a illustrated tread pattern, which has a central area including three block rows and a rib, to ensure high resistance to aquaplaning while delivering superior handling in all weather conditions or Kuze et al's suggestion to use a tread pattern as shown in figure 1, which has a central area including three block rows and a rib, to improve driving stability.

Allowable Subject Matter

7) **Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

Although an asymmetric tread pattern including central blocks which are approximately semiparabolic shaped is known per se as shown by Schomburg (US 6478062), there is no motivation to further modify Japan '606 such that the central blocks are approximately semiparabolic while continuing to include the remaining limitations of claims 16 and 23 as required by the dependency of claim 24.

Remarks

8) Applicant's arguments with respect to claims 16-23 and 25-34 have been considered but are moot in view of the new ground(s) of rejection.

9) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1733

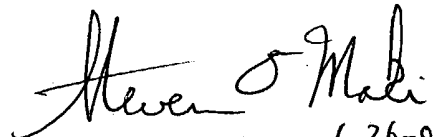
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
June 26, 2004


STEVEN D. MAKI
PRIMARY EXAMINER
~~GROUP 1300~~
Av 1733 6-26-04